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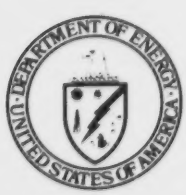
VANPOOLING . . . . . An Update

May 1978

Prepared By
U.S. Environmental Protection Agency
and
U.S. Department of Energy
Assistant Secretary for
Conservation and Solar Applications
Transportation Programs Office



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VANPOOLING.....An Update

May 1978

Prepared By
Robert Gray
U..S. Environmental Protection Agency
and
Lew Pratsch
Ruby Starling

U.S. Department of Energy
Assistant Secretary for Conservation
and Solar Applications
Transportation Programs Office
Washington, DC 20461

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ACKNOWLEDGMENTS

This report represents an update of the publication, Vanpooling: A Summary and Description of Existing Vanpool Programs, January 1976, by Mr. Ira Forstater and Mr. Ed Twomey of the Environmental Protection Agency.

We would like to thank the many individuals who provided information on their vanpool programs. Due to space limitations, we are sorry that it was not possible to include a summary on each vanpool program as in the previous report. This was brought about by the substantial growth in vanpool programs from 33 to over 120.

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P R E F A C E

In April 1973, the 3M Company of St. Paul, Minnesota initiated the first employer sponsored commuter van program in the United States. Since that time and often following 3M's example, over 100 employers have sponsored vanpool programs. In addition, two other significant types of vanpool programs are operating: the third-party approach, where vans are provided and vanpools organized by other than the employer or employee; and the individually owned and operated approach, where a commuter provides the van and organizes the vanpool.

During this period, many excellent publications have been printed dealing with the development, operation, programs, and benefits of vanpooling. Yet, the rapid expansion of the van concept has left many of the descriptions of specific programs outdated. It was with this information gap in mind that the Office of Transportation Programs, Department of Energy, and the Office of Transportation and Land Use Policy of the Environmental Protection Agency decided to conduct a survey of commuter van programs.

The Department of Energy is currently providing grant funds to states to implement energy conservation plans under the provisions of Title III of the Energy Policy and Conservation Act of 1975. In order to be eligible for these funds, each plan must include five specific programs activities, some of which relate to transportation. The promotion of mass transit and ridesharing is one of the areas specified as a required energy conservation measure. In addition, the Environmental Protection Agency plans to develop model vanpooling regulations within the next year to satisfy one of the requirements in the Clean Air Act Amendments of 1977. Some areas already have vanpooling regulations in their State Implementation Plans.

The purpose of this booklet is twofold: (1) to present in one source the current data on a cross-section of vanpool programs; and (2) to allow prospective vanpool sponsors to analyze and compare the various approaches used by those programs already in operation. The key characteristic of vanpool programs is that each is a unique adaptation to a particular situation. A knowledge of these possible variations should prove helpful to an employer planning to embark on a vanpool project.

Above all, it is hoped that this publication will further the exchange of information among vanpooling companies, prospective vanpooling sponsors, and all levels of government that is so vital to the successful

expansion of the commuter van concept. To that purpose, each summary description of a program contains a contact name and phone number so that interested persons can obtain more specific information. The best advocates and sellers of the vanpool concept are frequently the very persons who are actually running the programs. In most cases, these people are more than willing to share their time and expertise with interested individuals or corporations.

The material contained herein is the result of information gathered in 1975 and 1976, and updated in 1977. The rapid growth of vanpooling renders a project such as this partly outdated almost as soon as it is completed. However, this report can continue to serve prospective vanpoolers as a source of information on programs already under way--programs which will have answered many of the questions a prospective vanpooler is likely to raise and which will have also solved many of the problems that a perspective vanpooler is likely to encounter.

I N T R O D U C T I O N

What is Vanpooling?

Vanpooling is a commuter transportation mode in which employees whose residence are geographically clustered ride to and from their work sites in a van--a van which is driven and maintained by one of the employee passengers. A van can carry from 8 to 15 riders and the average vanpool travels 50 miles to and from work each day, saving a total of 5,000 gallons of gasoline each year per van.

Vanpools are organized on a permanent basis by major employers for their employees, by third parties and by individuals on a cost-sharing fare plan. Vanpools eliminate the costs to the community of providing for paid drivers, purchasing expensive equipment, and maintaining operations (which usually must be subsidized by taxpayers).

The primary advantage of vanpools over carpools is the added convenience of relaxing while being "chauffeured" to and from work for approximately $35 per month. A survey of vanpool users, half former carpoolers and half former drivers traveling alone, found that 82 percent considered vanpooling more convenient than their previous mode. As a transportation means, vanpooling comes very close to the commuter's dream of personalized door-to-door transit at low cost.

Following is a cross-section of the three vanpool strategies found to be the most effective:

A. Employer Sponsored Vanpools -- Typically, the employer purchases the vans, assists in the formation of the vanpools and recovers vanpool capital and operating expenses through rider fares of $25 to $45 per month. This approach is the most widely practiced of the organized vanpool approaches and for a large company is relatively easy to initiate. Insurance is often readily available as companies usually include the vans under their fleet policies.

   1. The 3M Company in St. Paul, Minnesota, started a six van pilot program in April 1973, before the oil embargo and now has 108 vans in service. Increased vanpool and carpool activity at the 3M Company headquarters has resulted in 1.6 percent fewer commuter vehicles arriving each day even though employment increased 23 percent during the period.

   2. The Tennessee Valley Authority (TVA) in Knoxville, Tennessee, now has a total of 257 vanpools in operation in

eight cities. At Knoxville (3,200 employees) employees driving alone to work dropped from 65 percent to 18 percent as a result of increased use of carpools, vanpools, and buspools. At another site about one-half of the employees are in vanpools. The TVA credit unions financed the vans since Federal agencies are not yet allowed to acquire vans for vanpools.

3. The Continental Oil Company (CONOCO) in Houston, Texas, currently has a total of 91 vans operating in seven states. When the vanpool program was launched in March 1975, in Houston, 25 percent of the employees carpooled, but today 36 percent are carpooling and 16 percent are vanpooling.

4. The Prudential Insurance Company in Newark, New Jersey, established a vanpool program to enable employees to maintain their jobs when Prudential moved from the city to a suburban location. By the end of 1977, over 108 vanpools were operating at seven sites throughout the Nation.

B. Third-Party Sponsored Vanpools -- Third-party operators, some for profit and some for nonprofit, emerged in 1976. Developing a third-party program is more difficult to establish than employer-sponsored programs. This is due to regulatory constraints on "third-party" entry into the transportation market and the reluctance of insurance companies to insure them. Third-party operations have emerged only in states which have recently deregulated vanpools.

1. Commuter Computer Vanpool, Inc., in Los Angeles, California, represents a unique combination of both the private and public sectors. With management and marketing assistance of the Atlantic Richfield Company (ARCO) and the financing from Crocker National Bank, 85 vanpools were in operation by the end of 1977. The number of vanpools is expected to grow significantly in 1978.

2. Knoxville Commuter Pool, Knoxville, Tennessee, developed a new approach--essentially that of a transportation broker where the buyers and sellers of services regardless of mode were brought together. The goal was to best serve the consumers' needs and desires. With a well developed marketing approach, all extra buses, both public and private, are in use. In the past year, 50 multi-employer vanpools have been formed. Many of the vans are being purchased by the drivers who will continue to operate as owner/operator vanpools.

C. Individually Owned and Operated Vanpools -- No attempt has been made to determine the number of individually owned vanpools throughout the Nation. However, indications are that they are more numerous than all the vanpools in organized vanpool programs. One in Washington, D.C. has been operating for over 10 years.

In many respects, they are easier to form than formally organized vanpools. Insurance is available at the same rates as automobiles driven the same distance and number of days. They are often viewed as a "big carpool" by the regulatory authorities. Financing can be accomplished just like a new car. In fact, the van is replacing the station wagon as a family vehicle. The major disadvantages are that owner-operated vanpools have difficulty establishing a rider base due to a lack of viable matching services. Some regulatory commissions will not allow the driver to make a profit, thus destroying the incentive of some individuals to run a vanpool.

1. On the Shirley Highway bus and carpool lanes, I-395 in suburban Washington, D.C., a recent count identified 40 vanpools in one hour. It is estimated that there are over 100 individually owned and operated vanpools in this metropolitan area.

2. At the Social Security Administration in Baltimore, a new approach to assisting in the formation of individually owned vanpools was begun in November 1976. By December 1977, 16 vanpools were operating, with 20 more pending.

3. At the military industrial complex in the Norfolk, Virginia area and the Brown's Ferry Nuclear Power Plant in Alabama, over 100 individually owned and operated vanpools are known to be in operation.

Vanpools Complement Carpooling Activity

On the surface, it may seem that vanpooling is simply an alternative to carpooling. In practice, however, it has been discovered that vanpools not only supplement but also encourage the growth of carpools. For example:

1. At the 3M Company in St. Paul, Minnesota, 1,000 (or 14.3 percent) of 7,000 employees were engaged in carpooling in 1970. Today, 108 vans, including six privately owned, are in operation with over 1,000 participants, representing 10.5 percent of the current labor force of 9,500. At the same time, employee

participation in carpooling has doubled, and over 2,000 (or more than 21 percent) of the employees are currently using carpools. Thus ride-sharing has increased from 14.3 percent to 31.5 percent of 3M employees.

2. At CONOCO in Houston, Texas, about 25 percent of the 1,200 employees were carpooling in March 1973 when 10 vanpools were initiated. Today, 44 vans are in operation, and 36 percent are carpooling for a total of 52 percent ride-sharing.

3. Although precise figures for other companies are not available, Cenex, General Mills, Aerospace, Hoffmann-LaRoche, and other companies have found that vanpool programs have not diminished the level or growth of their employees' carpooling activity.

Vanpools Impact on Public Transit

A common question about vanpools is, "Will vanpools draw commuters from public transit?" The answer is generally, no. The average vanpool trip is 25 miles one way and the average transit commuter travels 6 miles one way. In fact, the market best served by vanpools, essentially the 27 percent of commuters traveling in excess of 10 miles to work, consume 69 percent of commuter vehicle miles of travel. While approximately 93 percent of the vanpools serve suburban or rural employment locations, only 5 percent serve Central Business Districts (CBD) locations. The remaining 2 percent of sponsors indicated both CBD and suburban work locations.

Vanpool Growth

The number of vanpools have doubled in each of the last 4 years since the 3M Company developed the concept; there are now over 150 sites nationwide. The list includes companies like Corning Glass Works, General Mills, Hoffmann-LaRoche, Chrysler, Montgomery Ward, Southern New England Telephone, and Hewlett-Packard. These programs now have nearly 2,000 vans serving over 20,000 commuters. The energy savings is over 10 million gallons of gasoline per year. The reduction in air pollutants is estimated at 4,000 tons each year. These figures do not include the estimated 2,000-3,000 driver-owner-operated vanpools believed to be in existence in the United States.

VANPOOL GROWTH

	Number of Sponsors	Number of Sites	Number of Vanpools
April 1973	1		6
April 1974	15		125
April 1975	25		240
April 1976	56		643
April 1977	86		1,100
February 1978	122	163	1,986

How Do Vanpools Work?

While third-party vanpool programs vary considerably in their operation, a typical employer-sponsored vanpool program works on the basis of the following five major elements:

1. Preliminary Planning -- Major planning steps include:

   - o dissemination of information on the benefits of vanpools to employees,
   - o identification of employee resident location through distribution of a simple questionnaire,
   - o analysis of the level of employee interest through a simple survey, often taken at the same time residential location information is obtained,
   - o establishment of the initial number of vanpools, for each area, on the basis of available participants.

2. Development of Administrative Procedures and Details -- At most sites, vanpool related administrative and supervisory costs are assumed by the employer. These are generally modest and, in some cases, negligible. The employer's costs are compensated for by the reduction in parking facilities required, reduction of parking space maintenance costs, possible employer use of vans during working hours, reduction in employee absenteeism and tardiness, greater employee loyalty, greater employee accessibility to work sites resulting in improved labor supply, greater productivity of vanpooling employees, and improved public and community relations.

A successful vanpool works on the basis of simple and minimal administration and many of these responsibilities are delegated to the vanpool driver/coordinator.

Administration of the program falls to people involved either in transportation, personnel, or administrative services. The legal, traffic, insurance, and public relations departments may also be involved in initiating the program. The responsibilities of the administrators include organizing resident clusters, selecting driver/coordinators, holding pool formation meetings, accounting, and, in some instances, collecting fares.

3. Development of Operating Procedures and Details -- The vanpool driver/coordinator receives free commuter transportation, personal use of the van during nonbusiness hours at a minimal charge, all passenger fares above the break-even minimum, and is responsible for the following operating procedures:

   - o obtaining special driver's license where necessary,
   - o training backup drivers and getting necessary licenses,
   - o maintaining minimum ridership (with the administrator's help),
   - o keeping records of van operations and log sheets of riders for each day,
   - o servicing, maintaining, and cleaning the van as necessary, and all pertinent accounting,
   - o collecting fares (where this function is delegated),
   - o getting group agreement on schedules and related arrangements which are satisfactory for each vanpool.

4. Ordering of Vans -- In a typical program, vans are purchased or leased by the employer, and operated on a nonprofit self-supporting basis. The employees who commute in the vans cover the depreciation and operating costs by paying monthly fees. The initial van purchase costs are assumed by the employer and are recovered from passenger fares over a period of 4 years. If the van is leased, monthly employee payments cover the leasing charges.

5. Plans for Expanding the Program -- Some of the most successful vanpooling companies have found that a realistic plan for expansion is essential for the growth of the program. In the absence of a growth plan, administrators tend to become satisfied with the fulfillment of the initial plan, and employee interest tends to abate without sustained company promotion to increase vanpool participation. When faced with the responsibility to fulfill self-developed expansion targets, vanpool administrators tend to be more innovative in developing ways and means to sustain employee interest and develop demand for vanpools. This approach is well founded, because the evidence reveals that over 90 percent of all employees who have participated in vanpools intend to stay with them.

Employer/Employee Benefits in Vanpooling

Vanpooling offers substantial benefits to employers such as saving investment funds in land and parking facilities; improving employee relations by providing a service of great economic value; increasing employee morale, punctuality and productivity; broadening the potential employee market by making more remote areas accessible to the work site; reducing traffic congestion at rush hours; and incurring valuable public relations advantages by enhancing the company's reputation through contributing to community and national efforts to reduce energy consumption and environmental pollution.

Major companies have observed that vanpooling has greatly improved company loyalty and identification among their employees. This attitude stems from the awareness of the benefits accrued from such a service. These include:

- Estimated annual gasoline savings of $400 in commuting costs for employees who previously drove alone in a standard-sized automobile, making a daily 20-mile round trip to work, and even greater savings on longer trips.

- Additional savings of $1,000 a year or more if the employee disposed of his or her second car.

- Allowing long-distance commuters to continue to commute despite rising cost of commuting.

- Guaranteed door-to-door all-weather service.

- Comfortable and relaxed chauffeured commuting.

- Opportunity to meet fellow employees and to develop new friendships and interests.
- Elimination of long trying walks during bad weather conditions, after parking.
- Reduced traffic congestion at company site.
- Various company incentives to encourage vanpooling, such as preferred parking, initial free rides for regular vanpoolers and special recognition within the company.

Companies with existing programs are so enthusiastic about the results achieved that they are willing to provide technical assistance to others concerning the establishment and operation of their vanpool programs.

Costs of Vanpool Program

The cost of initiating and sustaining a vanpool program is one of the primary concerns of management. While a vanpool system is not always self-supporting, it is capable of recovering most of its costs. Methods of calculating expense rates vary according to company intent, accounting procedures and geographic locations.

For example, most firms do not include in the fixed cost schedule the administrative experience borne by the company, nor the imputed interest on capital which could have been utilized elsewhere. Depreciation may be calculated on the basis of purchase price alone or by subtracting anticipated trade-in value of the van. Also, investment tax credits may alter the cost structure. Almost all documentation of vanpooling experience indicates that it is potentially self-amortizing.

Administrative expenses, plus the capital involved in a purchase agreement, are generally the only costs assumed by the company. These relatively modest costs should be weighed against the possible financial benefits to the firm. Such savings might accrue by eliminating the necessity to construct increased parking facilities, the elimination of some parking maintenance costs, and even freeing up current parking space for building expansion. Company use of the van during working hours can also be a low-cost method for intra-company communication and mail delivery. The operational mileage charge to the company can be credited to the vanpool account to reduce vanpool administrative costs.

Once a viable program is established, the administrative responsibility of the company is minimal, as major operational and bookkeeping duties

are delegated to the individual driver/coordinator. It should be stressed that the most successful programs are those that have the most enthusiastic endorsement of management. The greater the initial effort expended in setting up an efficient and well-organized system, the less time and attention is required to supervise the program once it is under way.

To implement the program, groundwork must be laid with employee surveys, van route planning, publicity and demonstration. The most important step at this stage is to select driver/coordinators since they will ultimately assume the responsibility for the management of each individual pool of riders.

Vans must be purchased, local regulations must be investigated, and a bookkeeping system must be set up whereby income, expenses, and vanpool experience can be recorded. Once established, the vanpool program is primarily in the hands of its participants. The driver/coordinator is responsible for maintaining the vehicle, facilitating communications among passengers, handling all the record keeping, and often collecting the fares. The most effective programs are those in which maximum authority and responsibility are delegated to the driver/coordinator.

The company's responsibility at this point is directed toward updating passenger information, collecting individual van records for bookkeeping purposes, maintaining compliance with state and local regulations, promoting the program among employees, assigning new vanpools, and general supervision and planning.

Companies considering the establishment of a vanpool program are often concerned about the extent to which employees will participate. Active employee participation is a direct function of management's support and promotion of the project. This involves the education of employees as to what vanpooling is, communication of its many benefits, and the use of incentives to elicit employee response. Existing evidence shows that if management backs vanpooling, employees will participate. Once an employee starts vanpooling, he or she is likely to continue in the program.

STATE-BY-STATE

SUMMARY

OF

EXISTING VANPOOL PROGRAMS

STATUS OF U.S. VANPOOL PROGRAMS

Company/Organization	Date Started	Number of Vans
ALABAMA		
Tennessee Valley Authority, Hollywood (See Knoxville Headquarters listing)		12
Tennessee Valley Authority, Athens (See Knoxville Headquarters listing)		2
Tennessee Valley Authority, Stevenson (See Knoxville Headquarters listing)		3
Tennessee Valley Authority, Muscle Shoals (See Knoxville Headquarters listing)		17
ARIZONA		
Sperry Flight Systems, Phoenix	4/74	11
Fiesta Paratransit, Scottsdale	8/77	3
CALIFORNIA		
Southern California Commuter Bus, Huntington Beach	1972	2
3M Company, Los Angeles (See St. Paul Headquarters listing)		1
Ampex Corporation, Redwood City	3/74	5
Ralph M. Parsons Company, Pasadena	3/74	35
Douglas Oil, Costa Mesa (See Houston CONOCO Headquarters listing)		1
Aerospace Corporation, Los Angeles	4/75	20
Caltrans Vanpool Project, Sacramento	7/75	24
Caltrans Vanpool Project, Los Angeles (See Sacramento Headquarters listing)		3
Caltrans Vanpool Project, San Francisco (See Sacramento Headquarters listing)		8
Prudential Insurance Company of America, Los Angeles (See Newark Headquarters listing)		13
Golden Gate Bridge, San Rafael	9/75	24
University of California, San Francisco	9/75	20
C. F. Braun & Company, Los Angeles	11/75	28
Pinetree Transportation Company, Long Beach	11/75	100
Northrop Corporation, Hawthorne	1/76	6
Commuter Computer, Los Angeles	4/76	85
City of Los Angeles, Los Angeles	5/76	4
Fluor Corporation, Irvine	7/76	36
Hewlett Packard, Palo Alto	9/76	11
SRI International, Menlo Park	11/76	1
University of California, San Diego - La Jolla	7/77	6

University of California, Berkeley		6
Conservation Industries Commuter Vans, San Diego	1/78	4
COLORADO		
Statitrol, Lakewood	4/76	2
CONOCO, Denver (See Houston Headquarters listing)		3
Johns-Manville Corporation, Denver	10/76	1
CONNECTICUT		
American Can Company, Greenwich	7/74	4
CONOCO, Stamford (See Houston Headquarters listing)		1
Southern N. E. Bell Telephone, New Haven	2/76	10
General Dynamics Corporation, Groten	5/77	45
Aetna Life & Casualty Company, Hartford	9/77	3
Northeast Utilities, Hartford	11/77	4
Yale University, New Haven	12/77	1
Combustion Engineering, Windsor	1/78	3
Connecticut General Insurance, Bloomfield	1/78	2
DISTRICT OF COLUMBIA		
Department of Transportation, Washington, D.C.	5/77	12
FLORIDA		
Prudential Insurance Company of America, Jacksonville (See Newark Headquarters listing)		4
GEORGIA		
Modnar, Atlanta	1/73	10
HAWAII		
Vango, Hawaii, Honolulu	9/77	10
ILLINOIS		
Montgomery Ward, Chicago	10/74	19
Zenith Radio, Chicago	9/76	7
Allstate Insurance, Northbrook	11/77	10

McMaster Carr Supply Company, Chicago	11/77	5
G. D. Searle & Company, Skokie	2/78	2
IOWA		
Winnebago Industries, Forest City	12/74	29
KENTUCKY		
Greater Louisville Chamber of Commerce, Louisville	1/78	6
LOUISIANA		
CONOCO, Lafayette (See Houston Headquarters listing)		1
CONOCO, Lake Charles (See Houston Headquarters listing)		9
State Times-Morning Advocate, Baton Rouge	12/77	2
MARYLAND		
Commercial Credit Equipment Company, Baltimore	5/76	9
Baltimore County Government, Towson	10/76	2
Social Security Administration, Baltimore	10/76	16
Peterson, Howell and Heather, Baltimore	12/76	1
Vango, Inc., Linthicum	9/77	18
Aberdeen Proving Ground, Aberdeen	1/78	5
MASSACHUSETTS		
Prudential Insurance Company of America, Boston (See Newark Headquarters listing)		9
New England Mutual Life Insurance Company, Boston	10/75	1
Polaroid, Needham Heights	10/75	5
Eckel Industries, Ayer	1976	1
Massachusetts General Life, Newton Lower Falls	8/76	1
Digital Equipment Corporation, Maynard	4/77	8
MICHIGAN		
Chrysler Corporation, Detroit	6/74	75
State of Michigan - State Employee Vanpool Program, Lansing	4/77	37
Detroit Edison, Detroit	10/77	10

MINNESOTA		
3M Company, St. Paul	4/73	108
3M Company, Second Location, St. Paul (See St. Paul Headquarters listing)		8
3M Company, Hastings (See St. Paul Headquarters listing)		2
Cenex, South St. Paul	10/73	20
General Mills, Inc., Minneapolis	1/74	20
Medtronics, Minneapolis	4/74	1
Honeywell Corporation, Minneapolis	Fall 1974	4
Prudential Insurance Company of America, Minneapolis (See Newark Headquarters listing)		5
Richfield Bank and Trust, Minneapolis	10/75	1
Minnesota Mutual Life Insurance Company, St. Paul	1/76	1
Grain Terminal Association, St. Paul	3/76	2
Blue Cross Blue Shield, St. Paul	4/76	3
National Car Rental, Bloomington	Spring 1976	3
Minnesota State Employees Vanpool Program, St. Paul	9/76	10
Cargill, Minneapolis	1/77	6
Commuter Services Share-A-Ride Program, Minneapolis	1/78	7
MISSISSIPPI		
CONOCO, Aberdeen (See Houston Headquarters listing)		1
Tennessee Valley Authority, Yellow Creek, Iuka (See Knoxville Headquarters listing)		2
MISSOURI		
Hallmark Cards, Inc., Kansas City	11/77	3
City of Kansas City, Kansas City	1/78	3
MONTANA		
Cenex, Laurel (See South St. Paul Headquarters listing)		1
NEBRASKA		
Offutt Van Pool, Omaha	5/77	8

NEW HAMPSHIRE		
Digital Equipment Corporation, Merrimack (See Maynard Headquarters listing)		2
NEW JERSEY		
Hoffmann-LaRoche Pharmaceuticals, Nutley	6/74	36
Fablok Mills, Murray Hill	1/75	3
Prudential Insurance Company of America, Newark	7/75	108
Prudential Insurance Company of America, South Plainfield (See Newark Headquarters listing)		59
A.T. & T. Longlines, Bedminister	10/75	67
Nabisco, Hanover	10/75	13
Schering Plough, Kenilworth	10/75	15
Sandoz, Inc., East Hanover	12/75	3
Bell Telephone Laboratory, Holmdel	2/76	13
Educational Testing Service, Princeton	5/76	3
Laminating Corporation of America, Eatontown	7/76	5
Mini-Transportation, Fort Monmouth	12/76	1
Allied Chemical Company, Morristown	1/77	3
Beckton-Dickinson, East Rutherford	4/77	1
Boy Scouts of America, North Brunswick	10/77	1
New Jersey Bell Telephone Company, Newark	1/78	3
Ortho Pharmaceutical Corporation, Somerset	1/78	2
NEW YORK		
Corning Glass Works, Corning	6/74	17
NEW MEXICO		
State Employees Commuter Association, Rio Rancho	3/75	6
NORTH DAKOTA		
Basin Electric Power Cooperative, Bismarck	9/77	1
OKLAHOMA		
CONOCO, Ponca City (See Houston Headquarters listing)		20

OREGON		
Tektronex, Inc., Beaverton	1/76	6
PENNSYLVANIA		
Gulf Research and Development, Pittsburgh	8/74	2
Consolidated Coal, Pittsburgh (See Houston CONOCO Headquarters listing)		2
Consolidated Coal, Washington (See Houston CONOCO Headquarters listing)		1
Prudential Insurance Company of America, Dresher (See Newark Headquarters listing)		2
Scott Paper, Philadelphia	8/75	2
General Electric, Philadelphia	2/76	3
Smith Kline, Philadelphia	4/76	12
University of Pennsylvania, Philadelphia	9/77	2
RHODE ISLAND		
Allendale Insurance, Johnston	2/77	3
Old Stone Bank, Providence	12/77	1
TENNESSEE		
Tennessee Valley Authority, Knoxville	6/74	257
Tennessee Valley Authority, Hartsville (See Knoxville Headquarters listing)		169
Tennessee Valley Authority, Norris (See Knoxville Headquarters listing)		1
Tennessee Valley Authority, Chattanooga (See Knoxville Headquarters listing)		17
Tennessee Valley Authority, Raccoon Mountain - Chattanooga (See Knoxville Headquarters listing)		1
Tennessee Valley Authority, Soddy Daisey (See Knoxville Headquarters listing)		3
Tennessee Valley Authority, Spring City (See Knoxville Headquarters listing)		4
Kayo Oil, Chattanooga (See Houston CONOCO Headquarters listing)		1
Knoxville Commuter Pool, Knoxville	3/76	58
TEXAS		
Texas Instruments, Dallas	3/74	14

CONOCO, Houston	3/75	91
CONOCO, Big Springs (See Houston Headquarters listing)		1
CONOCO, Carizzo Springs (See Houston Headquarters listing)		1
CONOCO, Fall City (See Houston Headquarters listing)		1
CONOCO, Midland (See Houston Headquarters listing)		1
CONOCO, Pecos (See Houston Headquarters listing)		1
Prudential Insurance Company of America, Houston (See Newark Headquarters listing)		16
Hughes Tool, Houston	1/76	6
Brown & Root, Houston	2/76	15
Aramco Services, Houston	3/76	10
Mitchell Energy, Houston	9/76	6
Gulf Oil, Houston	1/77	35
Mobil Oil, Houston	2/77	14
Comet-Rice, Houston	6/77	1
Armco, Houston	7/77	2
Mason & Hanger - Silas Mason Company, Inc., Amarillo	7/77	24
Crum & Forster Insurance Companies, Dallas	11/77	1
United Service Automobile Association, San Antonio	12/77	5
VERMONT		
Erving Paper Mills, Brattleboro	10/73	6
VIRGINIA		
Alan M. Voorhees & Associates, McLean	1/74	1
Reston Commuter Bus, Inc., Reston	2/74	3
Tidewater Regional Transit, Norfolk	10/77	63
WASHINGTON		
University of Washington, Seattle	10/76	8
Recreational Equipment, Inc., Seattle	3/77	2
Rainier Bank, Seattle	7/77	8
Intalco Aluminum, Ferndale	11/77	1
WYOMING		
CONOCO, Casper (See Houston Headquarters listing)		2

CANADA

Polisar, Ltd., Ontario	Fall 1966	16

VANPOOL PROGRAM

SUMMARIES

AEROSPACE CORPORATION
LOS ANGELES, CALIFORNIA

The joint ride-sharing program of the Aerospace Corporation and the Air Force's Space and Missile Systems Organization began in June 1972 with the introduction of a carpool matching service and a charter bus operation. Although the carpool program was quite successful, the organizations felt that the greater flexibility and efficiency of vans over bus and carpools warranted the introduction of a vanpool program. Initiated in April 1975, the program now includes a total of 20 vans - 18 are company leased and 2 are privately owned.

According to the managers of the Aerospace/Samso Commute-A-Van Program, three significant features have been primarily responsible for its success: the van style, the method of procuring the vehicle, and the fare structure. In determining the type of van to be used, rider comfort was a major consideration. Consequently, those vans which were intended for use over longer routes were furnished with airplane-type reclining seats. According to the company, the additional ridership induced by this feature more than compensates for the additional cost of the seats and the reduced passenger capacity per van.

The vans are procured by the company through leasing, with the full cost assessed to the passengers. Fuel and maintenance service, partially provided by Aerospace facilities, is charged to each van on a per-mile basis. Finally, the program utilizes a commercial liability insurance policy costing $46 per month per van in combination with a van program insurance pool which assesses each van $10 per month.

Aerospace employs a unique fare system combining monthly and daily charges. Each regular rider is charged 1/3 of his share of the costs on a monthly basis. The remaining 2/3 is divided by 17 and is assessed daily. Through this procedure, each van breaks even if the riders miss, on the average, one day a week. Both the company and van riders are in agreement that this fare plan provides the greatest equity.

According to Aerospace/Samso, sincere management support for vanpooling is essential for the success of a van program. While vanpooling assures the prompt arrival of employees in the morning, it also guarantees their speedy departure at the end of the day. Management must find this situation compatible with the operations of the company, or be willing to reimburse employees requested to work overtime. Conscious decisions must be made concerning the size and scope of the program, the degree to which the company is willing to subsidize the vanpools, and the amount of publicity desired.

Clearly, the Aerospace/Samso van project has been a fruitful one. The attractions of a low cost, comfortable, and convenient ride to work have made vanpooling competitive with more traditional modes of commuting, especially for those employees traveling longer distances. The result, according to a company study, is a reduction in vehicle miles traveled of two million miles annually with energy savings of 130,000 gallons of gasoline.

For additional information on the Aerospace/Samso Commute-A-Van Program, contact James Baynes, the Aerospace Corporation, Energy and Resources Division, Los Angeles, California 90009, (213) 648-7170.

ARAMCO SERVICES
HOUSTON, TEXAS

Aramco Services initiated a vanpool program in March 1976 and currently has 10 vans in operation. It is anticipated that this service will be extended as the need arises.

The fare structure is similar to that of CONOCO in Houston, Texas. The fare is based on mileage traveled with the administrative costs being absorbed by the company. Furthermore, the parking costs of the van are absorbed by the company. The payment of the fares is handled through a direct payment each month to the driver by the passengers. As an incentive for the driver, he is permitted to use the van during off-hours if he supplies the gasoline.

The van is used primarily for commuting, however, business trips are permitted if the designated driver of the van is the actual driver on such trips. The normal commuting trips range between a minimum of 15 miles one way to a maximum of 25 miles one way. The van is insured under the general company umbrella policy.

There are several unique characteristics of this program. The van is obtained through a lease agreement with a standard term of between 30-36 months. However, at the termination of this lease period, the driver of the van has an option to buy the van at its depreciated value. It is felt that this arrangement is a significant factor in attracting drivers to the program. A further unique feature of the program is that the van does not provide door-to-door service. Rather, the passengers assemble at designated park-and-ride locations in order for the van to pick them up.

For additional information on Aramco Services vanpooling program, contact Norman Murrell, Aramco Services, Houston, Texas 77002, (713) 641-5870.

CALTRANS VANPOOL PROJECT
SACRAMENTO, CALIFORNIA

In order to test the feasibility of vanpooling, the California Department of Transportation initiated a demonstration vanpool project in July 1975 with 3 leased vans. The program has expanded to 4 sites throughout the State with a total of 24 vanpools; all but the initial 3 vans are purchased by the State. In addition, Caltrans, with major funding from the State Energy Conservation Program is starting a new vanpool program called Rides for Bay Area Commuters (RIDES) in San Francisco, California. RIDES is a nonprofit corporation designed to provide a standardized vanpool leasing program to be made available to major public and private employers and employee groups.

RIDES has established a Master Agreement to be used to guarantee individual leases between vanpool users and the leasing company. The leasing company was chosen by competitive bidding and is responsible for leasing and fleet administration services. RIDES conducts the initial marketing, identifies and assists in organizing each vanpool and the leasing company is largely responsible for the vanpools once they have been established.

Under the initial Caltrans vanpool program, the drivers are required to obtain Class 2 (chauffeur's) licenses; one driver and two alternate backup drivers are licensed for each van. Drivers ride free to compensate for their coordination activities which include keeping a daily log of mileage and passengers, collecting passenger fares, and scheduling maintenance. The vans are available for State use during the day and drivers/participants are not permitted private use of the vehicles. All maintenance work, except service covered by warranty, is done in State equipment shops. The equipment shop pays all operating costs and bills the van account on a mileage fee basis to recover costs.

The State Insurance Office provides general and liability insurance coverage for the program through the State's master policy. The premiums are assessed pro rata to individual departments based upon vehicle inventory. The liability coverage is $2 million and general coverage is $50 million. The State Insurance Office also acquired property damage insurance to protect the lessor against damage to the original three leased vans.

Rates are calculated on the basis of 11 regular riders per van. Although the vans are fully subscribed, the daily passenger load

is in the range of 9 to 10 persons, due to vacations, travel schedules, and other factors which cause persons to vary their routines. Occasional riders may ride on a "space available" basis for a fare of approximately $2 per day. Fares are collected monthly in advance by the drivers and are deposited in a special account. A mileage charge for State use of the vans is also credited to the vanpool account. Lease payments and all other costs are paid from the account as they become due.

Over a period of 3 years, Caltrans has been instrumental in the passage of State legislation related to ride-sharing. The first piece of legislation (AB 918, 1975) deregulated vanpools provided that the vanpool has a seating capacity of 15 passengers or less, and the driver is traveling from place of residence to place of employment. It also provided funding for Statewide ride-sharing programs. Bill AB 3267, 1976 permits the use of State-owned cars and vans on a full reimbursement basis, and Bill AB 4139, 1976 removes 10-12 passenger vans from the bus classification on safety regulations.

For further information concerning these vanpool programs, contact Jack Derby, California Department of Transportation, 1120 N Street, Sacramento, California 95814, (916) 445-3087.

CENEX
ST. PAUL, MINNESOTA

In October 1973, Cenex (Farmers Union Central Exchange, Inc.) launched its Commute-A-Van program in response to the energy crisis. The program began with 2 vans, and has since expanded to include 20 vans that transport approximately 160 of the company's 620 St. Paul employees. A vanpooling program has also been initiated at Cenex's Laurel, Montana refinery consisting of one van in operation.

Each 12-passenger van operates on a break-even basis, with fares calculated on a 10-passenger occupancy. Vans are leased and riders are charged a fare of approximately 8.5 cents per mile plus fixed costs for trips ranging from 4 to 51 miles one way. Fares are collected through payroll deductions. Both drivers and other company employees are permitted to use the vehicles on nonbusiness days at a minimal cost.

Due to the low occupancy rate per van, the fares do not finance all of the expenses of the van program. However, Cenex believes that the money it spends results in substantial benefits for the company. Vanpooling has enabled a saving of about 120 parking spaces in an already overburdened facility. In addition, the company has found the vans to be helpful in attracting employees to a relatively isolated site.

Employees are equally enthusiastic about the program. Many have realized substantial savings over their previous mode of commuter travel. Also, the flexible mileage and passenger requirements are strongly appreciated. As a result of this enthusiasm, the company plans to expand vanpooling in accordance with employee demand.

For additional information on Cenex's Commute-A-Van program, contact Hal Schueble, Cenex, P.O. Box 6, South St. Paul, Minnesota 55165, (612) 451-5468.

CHRYSLER CORPORATION
DETROIT, MICHIGAN

In response to rising fuel costs, increasing traffic congestion, and lack of parking space, Chrysler Corporation initiated a pilot vanpool program in mid-1974 at its Syracuse, New York plant. The company has expanded the program to include seventy-five 12-passenger vans at its Detroit, Michigan headquarters and other plants.

The van program is operated on a break-even basis, with fares calculated on the assumption of 9 paying passengers. As opposed to most other vanpool operations, Chrysler includes administrative expenses in its cost estimates. The fares per passenger range from $21.50 to $39.50 per month. The insurance is a self-insured policy for collision; liability is under the general corporate policy and physical damage coverage is under a policy which costs approximately $17 per month per van.

Recognizing the important role played by the driver/coordinators in ensuring the success of the commuter van program, the company believes that they should be carefully selected. Drivers are required to have good driving and work records and obtain the recommendation of their supervisors. In return for their services in driving and maintaining the vans and keeping financial and passenger logs, the drivers ride free, retain the fares of the 10th and 11th paying pasengers, and are permitted use of the vehicles during nonbusiness hours.

In addition, Chrysler believes that only with the full support of top management can a vanpool project achieve any degree of success. Promotion of vanpooling, therefore, includes departmental meetings, mailings to employees, display areas, and the encouragement by top officials. In order to further increase the attractiveness of vanpooling, Chrysler also provides the vans with preferred parking spaces.

According to the Chrysler Corporation, vanpooling offers employees convenient, reliable, low cost transportation while enabling the company to help improve the quality of life in the communities in which its plants are located. As a result, further expansion of the program is anticipated.

For additional information on the Chrysler Commuter Vanpooling Program, contact Tom McDonald, Chrysler Corporation, P.O. Box 1919, Detroit, Michigan 58231, (313) 956-5351.

COMMUTER COMPUTER
LOS ANGELES, CALIFORNIA

Commuter Computer began its vanpool project in April 1976 with 20 leased vans. As of March 1978, the program has 85 vans operating, all of which are 10-passenger maxi-vans with airline-type reclining seats, luxury interiors and individual stereo earphones.

The vanpool program is a multi-company effort utilizing the services of Commuter Computer, an area-wide carpool matching service and non-profit corporation, which represents a unique combination of the private and public sectors. Each of the businesses in downtown Los Angeles were contacted by a representative of Commuter Computer who explained the availability of the program and explored possibilities of fare incentives for employees on the part of participating firms.

An agreement to underwrite 100 percent financing of the first 20 vans for the pilot program was made through Crockerbank Leaseplan. The administration of the maintenance program is handled by the lessor. This plan encompasses all aspects of fleet cost management, from the control of operating expenses, supervision, processing and payment of all bills to the reporting of all expenses on a per mile, per month and cumulative basis. The total cost is billed to the Vanpool Program at the end of each calendar month.

The fares range from $58 for a 30-mile round trip to $79 for a 100-mile round trip. Vans travel an average daily distance of 70 miles round trip for a fare of approximately $70 per month. ARCO permits their vanpoolers to apply the cost of the free parking space they are entitled to towards the monthly vanpool fare, thus substantially reducing the monthly fare. As an incentive, each driver who maintains a full van for a month is awarded $30.00. Insurance is carried through Travelers Insurance Company for a premium of $104.00 per month per van.

Experience in this project, utilizing high cost luxury vans, indicates that such a vanpool operation would be more successful if substantial subsidies were available from employers or the Federal Government.

For additional information concerning the Commuter Computer vanpool program contact Arthur Schreiber, President, Commuter Computer, Los Angeles, California 90012, (213) 380-RIDE.

CONTINENTAL OIL COMPANY (CONOCO)
HOUSTON, TEXAS

The Continental Oil Company began its commuter van pilot project in March 1975, as a program to conserve energy resources. The program began with the purchase of three 12-passenger vans and now consists of 91 vans, transporting commuters over daily distances of between 20 and 70 miles. CONOCO has vanpools at 11 sites in 7 states, including a number of small employment sites. For example, at Carizzo Springs, Texas, a site has 10 of 14 employees in a vanpool and in Casper, Wyoming, 20 of 78 employees are vanpooling.

Pool coordinators for the program are chosen by a selection committee on the basis of driving and work records as well as attitude toward the program. Viewing the coordinators as the essential factor in ensuring the success of the van program, CONOCO has delegated them with major responsibility for the pool operation: driving the van, maintaining passenger levels above 8, keeping the vehicle clean and serviced, training back-up drivers, collecting fares, keeping vanpool records, and providing off-street parking for the van. The drivers are also required by the State to obtain a chauffeur's license. In return, the drivers ride free, and have personal use of the van at a variable mileage charge depending on distance driven each month.

The CONOCO commuter van program is operated essentially on a break-even basis, although the company does absorb all administrative costs. CONOCO is phasing out the driver incentive of paying the driver the 10th, 11th and 12th fares in favor of reduced rider fares. The break-even costs for a vanpool are divided by 8 as the base fare. If there are 10 riders, the total cost is divided by 10 rather than 8, thus reducing each rider's fare.

The vanpool program has met with the overwhelming approval of management and employees alike. According to a survey of the program, 93 percent of the participants have found vanpooling to be equal to or more convenient than their previous mode of travel to work. Thirty percent indicated that they plan to sell a car or not buy an additional one as a result of the program. The company estimates that each van takes 7 automobiles off the road during rush hour, and saves approximately 8,000 gallons of gasoline per year.

CONOCO has been a leading promoter of the vanpool concept among other employers, and has assisted many employers in starting a vanpool program. The company intends to continue expanding vanpooling both in Houston and at its other United States locations.

For additional information on the Continental Oil Company approach to vanpooling, contact William Fortune, Continental Oil Company, 5 Greenway Plaza East, Houston, Texas 77001, (713) 965-1484.

CORNING GLASS WORKS
CORNING, NEW YORK

In an effort to conserve energy, reduce employee commuting costs, and to minimize parking space needs, the Corning Glass Works initiated its vanpool program in mid-1974 with the purchase of three 12-passenger vans. Since that time, the program has expanded to 17 vans.

Differing from other van programs, the drivers for Corning vanpools select their own passengers and establish the routes. However, the company has set a minimum of 10 passengers per vehicle, and 15 miles per route. A sliding rate scale is used to determine fares. The minimum rate is $1.00 per day and the maximum is $1.40 per day depending on mileage.

Fares are collected by means of payroll deduction, it being the opinion of the company that drivers should be free to concentrate on the operation of the van. In return for his services, the driver receives a free ride and is permitted to use the van for personal purposes at no charge.

Corning provides an additional incentive for employees to vanpool by offering preferred parking spaces. Both the management and its employees view the van program as a continuing success and the ridership figures support this viewpoint. In fact, the program did not lose a passenger in the past 1 1/2 years of its operation. For the minimum 15-mile one-way route, each rider saves approximatley $650 per year on vehicle operation and maintenance costs alone. Also, the company has found that each van frees approximately seven spaces in an overcrowded parking facility. To date, the program has experienced no regulatory restrictions.

For additional information on the Corning Glass Works vanpool experience, contact Dale Culberson, Corning Glass Works, Houghton Part A-3, P.O. Box 158, Corning, New York 14830, (607) 974-8773.

ERVING PAPER MILLS
BRATTLEBORO, VERMONT

In 1972, when Erving Paper Mills opened a new plant in Brattleboro, Vermont, the company was faced with a situation in which 150 of the 300 Brattleboro employees were forced to commute a minimum of 25 miles from their residences near the old Erving, Massachusetts facility. Thus, in order to reduce the cost of commuting for employees, prevent the loss of many highly skilled personnel, and help reduce the company's use of fuel and impact upon the environment, the company began to explore the possibility of instituting a vanpool program. It did so the following year with the purchase of 6 vans.

The operation of Erving Paper's van program is of special interest because the vehicles are used to serve the plant on a tri-shift basis. Most of the company's vans are used for two or three shifts each day, depending upon the residence and shift assignments of employees interested in pooling. Despite this heavy use of the vans, maintenance has presented little problem.

The average route is about 35 miles one way, with employees paying $1.25 a day for the commuter van service.

The company is entirely satisfied with the program. Employees enjoy the convenience of the vanpools, and have consequently continued working for Erving Paper Mills despite the long commuting distance. An estimated 300 gallons of gasoline are saved each week as a result of the vanpooling. In addition, the company is pleased to have been the recipient of Industry magazine's 1974 "Ecologue Flag" for having made the most important contribution by a Massachusetts company to the improvement of the environment.

For additional information on the multi-shift van system of Erving Paper Mills, contact John Provost, Erving Paper Mills, Vernon Road, Brattleboro, Vermont 05301, (617) 544-2711.

GENERAL MILLS, INC.
MINNEAPOLIS, MINNESOTA

Following 3M's example and concern about a severe lack of public transportation during a period of rising fuel prices, General Mills began its commuter van program on January 1, 1974. The initial purchase was 5 deluxe 12-passenger vans; within 3 months the fleet was expanded to 10 vans. General Mills now has 20 vans serving over 10 percent of the company's 1,800 employees.

General Mills considers the pool coordinators to be the key to a successful vanpool program. The company selects its coordinators according to interest in the program and past driving and work records. In addition, coordinators are required by Minnesota law to obtain a "Class B" chauffeur's license. Each coordinator is delegated the responsibility of driving and maintaining the van, keeping expense and performance records, and handling billing and scheduling matters. As an incentive for achieving maximum ridership, the pool coordinator is permitted to keep the fares from the 10th and 11th passengers as his profit, or use the money to reduce the fares of his riders.

In order to minimize operating costs and maximize van use, General Mills encourages the utilization of the vans throughout the day. Arrangements have been made to use a vehicle for shuttle service between buildings at the company's location. Free transportation is available to commuter van participants for medical appointments and emergencies, and income obtained from the business use of the vans furthers the reduction of commuter costs. Pool coordinators are permitted use of the vans during nonbusiness hours at a minimal cost of 7 cents per mile.

In the opinion of General Mills, vanpools are attractive to both the company and employees because of their reliability, flexibility, low cost, and convenience. Since 44 percent of the vanpool participants formerly drove to work alone, the program has significantly reduced traffic congestion near the office and has eliminated the need for approximately 100 parking spaces. The program has also provided the company with a broader labor market by opening employment to those who previously lacked the necessary transportation. Perhaps most important, vanpooling has had a marked positive effect upon employee morale and work efficiency, causing employees and company alike to view the program as an overwhelming success.

For additional information on the General Mills commuter van program, contact Karen Timman, General Mills, Inc., P.O. Box 1113, Minneapolis, Minnesota 55440, (612) 540-2311.

GOLDEN GATE BRIDGE
HIGHWAY AND TRANSPORTATION DISTRICT
SAN FRANCISCO, CALIFORNIA

In September 1975, as part of its promotion of vanpooling among Bay Area companies, localities and individuals, the Golden Gate Bridge, Highway and Transportation District (GGB), organized a vanpool for its own emplyoyees, transporting an average of 9 passengers about 92 miles round trip per day.

In an effort to expand the use of vanpools among commuters traveling in the Golden Gate corridor, GGB initiated the Vanpool Demonstration Project in September 1977 with funding from the Urban Mass Transportation Administration (UMTA). Thirty-five vans were purchased under the UMTA grant - 17 luxury 10-passenger vans with airline reclining seats and 18 deluxe 12-passenger vans. Even though the fare is $50 per month for the luxury van, $9 more than the deluxe van, for an average 80-mile round trip, the luxury van has proven to be more popular with commuters.

Insurance is provided by Golden Gate, depending on the distance traveled and the cost of the van. Liability coverage is $1,000,000. All aspects of insurance coverage for the vans have not been finalized; however, an insurance binder has been issued. Coverage is provided at a cost of $1,415 per year for the luxury van and $1,250 for the smaller model.

Drivers are guaranteed 6 months' use of a van after which they are encouraged to purchase their own to continue existing vanpools. A variety of marketing techniques have been instigated; such as placing a van in downtown San Francisco where interested persons may walk up and talk to a GGB staff member and distributing informative vanpool brochures on the Golden Gate Bridge and on buses. Effective in April 1976, no toll to cross the Bridge is charged for carpools of three or more.

GGB is concentrating on full capacity use of the vans and plans to keep three in reserve for back-up purposes if needed. Opinions of participating riders and drivers have been very favorable towards the program. A slide presentation has been compiled incorporating results of taped interviews with individual commuters.

For additional information about the van program and promotional campaign of the Golden Gate Bridge, Highway and Transportation District, contact John Shellenberger, Box 9000 Treisido Station, Golden Gate, San Francisco, California 94129, (415) 457-3110.

GULF RESEARCH AND DEVELOPMENT
PITTSBURGH, PENNSYLVANIA

Prompted by a combination of events, including employee interest in vanpooling and Environmental Protection Agency regulations requiring a reduction in vehicle miles traveled, Gulf Research began its vanpool program in August 1974, with the leasing of two 12-passenger vans.

Gulf is located about 15 miles outside of Pittsburgh and 1 mile away from the edge of the metropolitan bus system. The company is isolated and without any mass transit service. Thus, when Gulf closed a satellite facility and transferred the employees to the main plant, it decided to use vanpools to enable the workers to commute without a large additional cost. Two vans currently transport these employees from 60 to 80 miles each day at a monthly cost of $26 to $29 per passenger.

In addition, until recently the company operated a third van as a transfer shuttle. The bridge going across a nearby river had closed down to all but pedestrian traffic. Gulf's shuttle allowed employees to walk across the bridge and then be transported the several miles to work by van. The fare for the shuttle was $6 per month. When the bridge reopened an attempt to expand the vanpool program to include this third bus failed.

The commuter van program at Gulf is operated on a break-even basis, although the company does subsidize the program to a certain extent by absorbing administrative costs and paying for van lubrication and oil changes. The vanpools are also permitted to use the company's fuel pumps at a bargin price of 2 cents above wholesale.

According to the Director of Gulf's vanpool program, vans are made available to interested employee groups and are given every advantage of cost that accrues to the company as a result of its size and volume of purchases. The vans are also permitted to use special parking places adjacent to the plant buildings. However, the company is hesitant about giving vanpoolers preference over carpoolers by heavily subsidizing vanpooling, but not carpooling.

This presents the program administrators with a problem, because it has been Gulf's experience that reduced commuting costs is the major characteristic of vanpooling which will attract new riders. Over short distances, carpooling is able to match the cost of vanpooling. It is only over longer distances, when the replacement value of the

automobile becomes an important consideration, that the economic benefit of vans becomes significant.

Gulf considers vanpooling to be a generally favorable program. Employees are very happy and think vanpooling is terrific. The riders calculated the cost of a subscription bus service and found that it would cost $35 per month per person while making the trip to work 20 minutes longer. It is understandable, then, that Gulf's experience has been that it is the poolers themselves who really make the program work.

For additional information on the van program of Gulf Research and Development, contact Jared B. Wills, Gulf Research and Development, P.O. Box 2038, Pittsburgh, Pennsylvania 15230, (412) 362-1600.

HOFFMANN-LaROCHE PHARMACEUTICALS
NUTLEY, NEW JERSEY

A poor public transportation system and the onset of the energy crisis originally prompted Hoffmann-LaRoche to search for alternative methods of employee transport--including carpools, subscription buses, company bicycles, and walking. The vanpool program actually began with a brain-storming session resulting from a television report on the 3M vanpooling project. During spring 1974, the company initiated an aggressive promotional campaign. Presentations were made to employees during lunch and questionnaires were distributed.

The program became operational with the purchase of 3 vans in June 1974; there are now 36 vans serving 425 of the company's 6,000 employees. It is expected that the program will expand in the future. The vanpool program is operated on a cost-sharing basis, with fares for the various routes ranging between $18 and $30 per month. The driver's share of the costs are considered to be offset by his efforts in coordinating the pool, and each driver is permitted to use the van on weekends at a cost of 5 cents per mile. The New Jersey Public Utility Commission considers the vans to be passenger vehicles and not subject to regulation.

The 12-passenger vans are fully equipped and are leased with an option to buy. This method of securing vans appears especially well-suited for companies unwilling to make a large capital investment at one time or uncertain about the possible success of vanpooling at their location.

Based upon their experience, Hoffmann-LaRoche believes that vanpooling accrues maximum benefits over longer distance routes. One-way routes of under 10 miles do not seem as economical or attractive to employees who can often drive to work more quickly and with less expense. However, the parking preference granted the vanpools does much to ensure that even such short distance runs are a success.

There is strong agreement at Hoffmann-LaRoche that vanpooling is at the company to stay. Both management and the employees are very enthusiastic about the program. The reduced costs and tension in commuting have contributed to a significant boost in employee morale. Traffic congestion in the plant vicinity has also been reduced. Hoffmann-LaRoche has even sponsored seminars to encourage other area companies to begin vanpooling.

For additional information on the Hoffmann-LaRoche commuter van program, contact Robert Wald, Hoffmann-LaRoche Pharmaceuticals, 340 Kingsland Street, Nutley, New Jersey 07110, (201) 235-3898.

KNOXVILLE COMMUTER POOL
KNOXVILLE, TENNESSEE

The City of Knoxville Public Transportation Brokerage Service Project, Knoxville Commuter Pool (KCP), was a demonstration as well as research project co-sponsored by the Urban Mass Transportation Administration, Tennessee State Department of Transportation and the City of Knoxville. The University of Tennessee Transportation Center was responsible for the implementation of the project. The objective was to establish an operational organization that would promote the greatest possible utilization of transportation vehicles both public and private through the brokerage approach throughout the metropolitan area.

To date, the project is progressing extremely well. Ride-sharing express buses (private and public) and vanpools carry 27 percent as many riders as the traditional transit system. In September 1976, the Knoxville Transit Corporation's express bus program carried 24,509 riders in addition to regular route ridership. The private bus line carried 26,040 riders and the vans carried 24,360 riders. The traditional transit system carried only 41,068 riders during the same period.

Since the initial demonstration program, which included 50 vans, KCP has established a vanpool lease operation in order to promote the employee/owner/operator concept. The KCP vanpool operation essentially is a private operator multi-employer/employee program. It is felt that the real potential for vanpool commuting does not lie with a company-sponsored program, but with the van privately owned and operated as a small commuting business.

Acting in its broker capacity, KCP has used vanpools and carpools as an effective means of shifting transit service from low density, high cost areas to high density, more profitable areas. Vanpools have also been used to preserve service in rural areas where intercity carriers are abandoning services and to provide service to the unemployed, welfare recipients who do not have transportation to get to work.

The Knoxville Commuter Pool program is effectively showing that there are many diverse public transportation needs but that riders desire service tailored to their specific needs. It has shown that there is no shortage of drivers, that demand exists and grows rapidly once consumers have confidence in the concept, that there is an abundance of vehicle capacity and willing entrepreneurs if institutional

barriers can be eliminated. Also, the KCP program shows that it is more important to coordinate transportation services to meet individual travel rather than to coordinate the planning of a specific type of transportation system.

For additional information on the Knoxville Commuter Pool, contact John Beeson or Frank Davis, Transportation Center, University of Tennessee, Knoxville, Tennessee 37916, (615) 637-RIDE.

MASON & HANGER - SILAS MASON CO., INC.
AMARILLO, TEXAS

The Pantex Vanpool Program began in June 1977, with one 15-passenger van serving a group of employees from Clarendon, Texas. During the first month, 6 more vanpools were formed and by November 1977, a total of 20 individually owned vans were in operation, transporting 270 people to work at the Pantex Plant.

As a result of the successful initial vanpool operation, the concept of owner-operator vans spread quickly throughout the plant. New rider groups were formed from contact with commuters who had expressed interest in ride-sharing by completing a questionnaire or by telephone. The program was also reviewed in the company monthly bulletin. Grammar schools were used as the focal point to identify the origin of vanpools.

The financing of the vans was handled through the Pantex Federal Credit Union which made 100 percent loans available to those who would participate in the vanpool program. The loans were made at a 9 percent interest rate over a 48-month period.

While several insurance companies were totally uninterested, Pantex's insurance requirements were readily accepted by the State Farm Insurance Company. However, since the program has expanded, many insurance agencies have now indicated that they would be happy to insure the vans. Each owner-operator has the choice of taking insurance with any company that will provide adequate coverage. Coverage costs range from $300 to $350, depending on the size of the van, i.e., 13-passenger or 15-passenger.

The Pantex vanpool offers door-to-door pick-up in most instances and a common pick-up point for others. Consideration is being given to the feasibility of changing some of the existing traffic lanes to provide vanpool pick-up points. The complete expense of the van and its operation is paid for by the vanpool if it averages 10 passengers per day. That is the main reason for encouraging a 15-passenger vehicle; then a daily average of 10 passengers is easily accomplished.

The average Pantex vanpool travels 33 miles one way. The fare is approximately $30.00 per month, which is established by the driver who identifies all the costs and discusses them with the riders. For each van in operation, Pantex indicates a yearly saving of approximately 8,000 gallons of fuel. The organization and operation of 20 vanpools has resulted in a gain of 160 parking spaces at the plant.

Additional information may be obtained by contacting Marvin Thompson, Vanpool Coordinator, Education and Training Center, Mason & Hanger--Silas Mason Co., Inc., P.O. Box 30020, Amarillo, Texas 79177, (806) 335-1581.

3M COMPANY
ST. PAUL, MINNESOTA

In April 1973, the 3M Company initiated the first company-sponsored vanpool program in the United States. Beginning with a pilot program of six 12-passenger vans, the Commute-A-Van Program had grown by January 1978 to include 108 purchased vans serving more than 1,000 of the company's 10,000 employees.

As a large suburban complex with a growing workforce, 3M was faced with the prospect of expending large sums to enlarge the capacity of its parking facilities. In addition, traffic congestion near the 3M Center had presented a severe problem for some time due to limited access routes. In an effort to resolve these difficulties, the company participated in an area-wide home-work travel survey in 1970. The result was the institution of a major traffic improvement, ride-sharing project, including company-sponsored vanpools.

For the pilot van program, six areas with varying trip characteristics were chosen. The number of employees in these locations ranged from 67 to 277, with route distances varying from 5 to 32 miles one way. In January 1973, a special employee survey was conducted to determine the degree of interest in pooling from these selected areas. The response was excellent, and by the end of April, the pilot vans were in service.

Within a short time, it was evident that the Commute-A-Van concept was very successful and popular with the participants. Extreme interest was generated among other 3M employees and long waiting lists of employees and self-formed groups for additional vans began to appear. In July 1973, 3M management approved a proposal to expand the program.

Each vanpool consists of a pool coordinator, a necessary number of back-up drivers, and a minimum of eight paying passengers. The driver is selected on the basis of employment and driving record, supervisor recommendations, willingness to obtain the required Class "B" license, and interest in the program. The driver becomes responsible for the complete operation of the vanpool. In return for his services, the driver rides free, retains the fares of the 9th through 11th passengers, and has unlimited personal use of the van at a charge of 9 cents per mile.

Maintenance for the vehicles is obtained by the drivers. Although the vehicles can be serviced at the 3M garage, the company does not

subsidize this operation. Thus, the charges to the pool are comparable to that of other area service stations. Since the Commute-A-Van Program was begun, it has become apparent that some back-up capability is needed in the event of a van breakdown or maintenance condition. It appears that 1 backup vehicle for 25 operating vans is sufficient; back-up vans can also double as utility vehicles when not required for vanpooling.

In April 1974 and again in August 1976, a complete questionnaire survey was made of the van program participants. The surveys revealed that almost 25 percent of the riders use the vehicles 4 days or less each week. However, the convenience of the van service and the many accompanying benefits (such as free preferential parking) has led over 97 percent of the participants to express their intention to continue using the van as a means of commuting.

Furthermore, the company has realized enormous benefits as a result of the vanpool program. Calculations show that these vans save over 750 parking spaces. Combined vanpool and carpool activity at the 3M Company headquarters has resulted in 2 percent fewer commuter vehicles arriving each day even though employment increased 23 percent.

The 3M Commute-A-Van Program has been an outstanding success. The enthusiasm created for vanpooling at 3M has resulted not only in the continued expansion of that company's program, but also in the formation and structure of many of the other van programs listed within this booklet.

For additional information on the 3M Commute-A-Van Program, contact Robert D. Owens, 3M Company, 3M Center, St. Paul, Minnesota 55101, (612) 733-9648.

MODNAR
ATLANTA, GEORGIA

Starting with the purchase of 1 van in January 1973, Modnar is now a public corporation, operating 10 vans in the Atlanta metropolitan area.

At present, Modnar offers daily commuter transportation from two suburban areas to the Atlanta business district. In addition, one of the vans serves a Peachtree City shopping trip. The corporation recognizes two classes of passengers--regular and casual. Regular passengers have monthly standing reservations and are charged the daily base fare of between $1.50 and $3.00. Differing from other van programs, each is required to pay for a minimum of two-thirds of the van trips made. Casual passengers make reservations on a space available basis and pay a fare of not more than 150 percent of the base fare. Drivers of the vans ride free and obtain an incentive fee.

Established as a public service and with the intention of marketing vanpooling to area employers, Modnar does not operate as a profitmaking organization. Fares are calculated to finance half of the out-of-pocket costs of the van ride, and additional revenues result from the rental of vans to outside groups and the leasing of advertising space in the vans.

Modnar has applied for and received a certificate of public convenience and necessity to operate as a common carrier for the 9-county Atlanta area. Modnar is now authorized to run vanpools in nine counties but the trips must be greater than 10 miles one way and no pools can begin and end in a county which is served by the regular mass transit system. Modnar believes that this approach has the potential for yielding the highest van utility rate because it does not limit participation to the employees of a particular company. Thus, such a van program appears well-suited for areas containing a number of small companies in close proximity.

For additional information on Modnar and the common-carrier approach to vanpooling contact Dr. Stephen Dickerson, School of Mechanical Engineering, Georgia Institute of Technology, Atlanta, Georgia 30332, (404) 894-3255.

MONTGOMERY WARD
CHICAGO, ILLINOIS

In October 1974, Montgomery Ward responded to the energy shortage with the initiation of its commuter vanpool program. The company began with six 12-passenger vans leased from their regular leasing company, and has since expanded the program to include 19 vans transporting approximately 200 Montgomery Ward employees.

Previous to beginning its vanpool program, the company requested clearance from the Federal, state and local commerce and transportation agencies. This process was time consuming--taking 6 months--but clearance has enabled the program to operate free of any legal or regulatory restrictions.

Montgomery Ward's vans travel over a variety of urban and suburban routes, ranging from 15 to 45 miles in length. Rider fares finance all costs except for administrative overhead, but the company anticipates that it may become necessary to include this in the fare calculations as the program expands. As in other van programs, the pool coordinator rides free, keeps the fares of the 9th and 11th passengers, and is permitted personal use of the van at a charge of 8 cents per mile.

One major concern of the company is maintenance. Currently, the fleet administrator is responsible for ensuring that the manufacturer's preventive maintenance suggestions are performed. The van drivers obtain service for minor mechanical difficulties. Increased expenses due to major maintenance problems are anticipated during the later years of the van's life, and with it higher fares.

Both the company and its employees are delighted with the operation of the van program thus far. In addition, the company estimates that each van removes four automobiles from the road. Consequently, vanpooling is viewed as beneficial for employees as well as the public at large.

For additional information on Montgomery Ward's vanpool experience contact John Hunt, One Montgomery Ward Plaza, General Distribution, 5-South, Chicgo, Illinois 60671, (313) 467-3606.

NABISCO
HANOVER, NEW JERSEY

On October 20, 1975, Nabisco moved from its facilities in New York City to a new location in East Hanover, New Jersey. In planning for the move, management realized that the lengthy commuting distance would prevent many workers from continuing their employment with Nabisco. In order to minimize this occurrence and provide their employees with an economical and energy-efficient means of commuter transportation, the company developed a multi-faceted ride-sharing proposal. The program, which began on the date of the move, consists of charter buses, company automobiles, extensive carpooling and 13 vans.

Nabisco explains the tremendous interest in pooling at its facility as the result of a situation which was ready for ride-sharing. In addition to the sudden lengthening of commuting distances, pooling was also encouraged by the availability of only 400 parking spaces for the company's 1,000 employees.

The van program is now operating quite well; the participants and the company are quite happy with its progress. The leased 12-passenger vehicles carry employees over daily round trips of between 60 and 120 miles. The fare for a 100-mile round trip is about $46 per month. The driver rides free; in cases where several people share the driving, all of their fares are reduced accordingly.

For additional information on the Nabisco commuter van program contact Robert Kalitka, Nabisco, River Road, Hanover, New Jersey 07936, (201) 884-2981.

NEW MEXICO STATE EMPLOYEES' COMMUTER ASSOCIATION, INC.
RIO RANCHO, NEW MEXICO

During 1975, as a means of conserving energy, the Governor of New Mexico authorized the Energy Resources Board (ERB) to investigate the possibility of a commuting system for State employees. A travel inventory and a transportation study were conducted by the ERB. In addition, the Governor authorized the Department of Motor Vehicles to work with the ERB in an effort to find a solution to State employees' commuting problems.

As a result of meetings held between the Commissioner of Motor Vehicles and the commuters, the State Employees' Commuter Association, Inc. (SECA), a nonprofit organization, was formed and a Board of Directors was elected. Several meetings were conducted by the Board with car dealers and insurance companies in Santa Fe and Albuquerque, with the assistance of the Governor's Office, the ERB, and the Department of Motor Vehicles. Bus companies were also invited to offer bids. After considering all data available, the Board concluded that a vanpool program would be the most beneficial commuting system.

In March 1976, meetings were held in Santa Fe to finalize plans for leasing SECA's first 15-passenger van. Some delay was encountered in van delivery and locating insurance coverage. In fact, insurance was the main concern of the SECA Board of Directors. Coverage on the van for 1 year was finally obtained at an approximate cost of $1,800. As a result of DOE insurance studies which resulted in new classifications and rates accepted in 46 states in 1977, adequate coverage can now be obtained for about $600.

The pilot pool consisted of a van leader, a backup driver and 13 passengers. The passengers paid on a biweekly payroll deduction basis for a reserved seat, with fares ranging from 75 cents to $2.00 daily, round trip. Neither the van leader nor the backup driver were compensated in any way. The fare was based on the total amount for the lease, operation and maintenance of the unit, divided into 15 equal parts. Most of the members who dropped out of SECA because of the time it took before the progam started reported that they were forced to make other plans because of the payroll deduction which required them to pay for their seat for 1 year to guarantee the lease even if they were not using it every day.

Due to the administrative burden entailed in operating the program by a nonprofit organization, the growth potential is limited. However, it

is felt by participating commuters that vanpooling significantly contributed towards solving many area transportation problems. Some vanpoolers have found that they can sell their second car and save approximately $1,000 a year in addition to their commuting cost savings.

During the latter part of 1977, under provisions of Section 3 of the Emergency Highway Energy Conservation Act, the Federal Highway Administration of the Department of Transportation authorized grant funding, interest free, to the ERB for the purchase of ten 15-passenger vans by SECA.

Additional information may be obtained by contacting Dr. St. Arnaud Nicolas, President, State Employees' Commuter Association, 4800 Palmas Drive, SE., Rio Rancho, New Mexico 87124, (505) 827-3111.

RALPH M. PARSONS COMPANY
PASADENA, CALIFORNIA

In early 1974, the Ralph M. Parsons Company moved from Los Angeles to its new headquarters in Pasadena. Although only 10 miles away from its previous location, the Pasadena site was not well served by the metropolitan bus system which so many employees had used for commuting. In order to alleviate this problem, the company began its vanpool program in March of that year.

Initiated with 3 leased 12-passenger vans, the program now includes 35 vehicles serving approximately 400 of the company's employees each day. A minimum one-way route of 25 miles was established early in the program in order to ensure that the vans were available to those employees who would most benefit from pooling. Current routes range from 25 to 50 miles in length, with at least 10 routes over 50 miles.

In return for the service, riders pay a biweekly fare on a graded schedule consisting of four levels - $17, $18, $19 and $20. The fare which a rider owes is determined by the route length, with those traveling over 50 miles one way paying $20 every payday.

The pool coordinators are required by the state to obtain a Class 2 (chauffeur's) license. The drivers are responsible for the entire van operation, including the securing of the necessary number of passengers. In return, the coordinators ride free and are permitted the free personal use of the vehicles. In addition to the special licenses, vans are required to carry certain safety equipment and must have special mechanical adjustments performed on the vehicle.

The vans, which are parked at a service station, save Parsons about 300 parking spaces at its overburdened parking facilities. Furthermore, the company found the van program to be an important factor in attracting a number of highly skilled people to the plant. The participating employees fully appreciate saving costs in commuting, while being spared the daily anguish of driving through heavy Los Angeles freeway traffic. As a result, the company anticipates the continued expansion of its vanpool program.

For further information on the Ralph M. Parsons Company program, contact Dr. Henry Francis, Ralph M. Parsons Company, 100 Walnut, Pasadena, California 91124, (213) 440-2477.

POLISAR, LTD. COMMUTER VAN COOPERATIVES
SARNIA ONTARIO, CANADA

In 1966, the first commuter cooperative began operating at the Canadian company of Polisar, Ltd. Since that time, seven additional commuter cooperatives have been formed to expand the service to 16 vans carying a total of 500 workers daily. It is the associations rather than Polisar which own the vehicles. The commuter associations are nonprofit and generally have one van which transports 30 to 35 members on three shifts. However, some of the commuter groups, such as the North End Commuters Association, have grown to include over 100 members using three vans.

Associations were initiated due to a scarcity of parking facilities at Polisar and concern about air pollution. In order to join a van association, employees are required to pay a minimum initiation fee, as well as join the Polisar Credit Union to allow for deductions of the van fares from their paychecks. Through their fees members become part owners of the van. The members also elect officers who administer the van program on a daily basis.

The vanpool program at Sarnia is unique in that the vans are utilized for three shifts per day. Because members' shifts may change quite frequently, there is no one permanent van driver. Instead, all members are required to drive when necessary, the particular drivers for the day being determined by who lives closest to the driver on the next shift. Each member has a plastic disc displaying his name and address, which he places on the appropriate peg of a board located in the van. Through this method the participants are able to indicate the next time they will be commuting. The route for a particular shift is therefore determined by the driver by putting the disc from the proper peg in location order. Members are then picked up at their doors and driven to a special parking place at Polisar. The van is left at the space for the shift getting off from work at that time. After dropping the new passengers off at their homes, the driver parks the vehicle in the driveway of the driver for the following shift, and walks home.

The commuter associations obtain vehicle maintenance in a number of different ways. While some groups have designated one person as being responsible for securing fuel and repairs, others have the vans fueled and serviced at regular intervals. Finally, some associations with relatively compact pickup areas have the vans dropped off at a local gas station upon completion of the homebound route. The

station checks fuel and maintenance during the interim period, and the driver for the next shift picks up the vehicle there.

By using the van for three shifts, 7 days a week, the commuter cooperatives are able to minimize costs and members fees. The average yearly fixed cost is approximately $1,800 and operating costs come to about 9 cents per mile. As a result, the member in an average club of 30 to 35 participants pays a weekly fee of between $2.00 and $3.00, with money left over at year's end being returned. The multi-shift method has worked well, and the associations reimburse members for expenses incurred because of any mixup. In all, van riders find the service to be both economical and convenient and are generally pleased with the program.

For additional information on the Sarnia commuter van cooperatives, contact Frank Hubbard, Polisar, Ltd., Sarnia, Ontario (519-337-8251), or Tom Deveraux, 1151 St. Laurent Drive, Sarnia, Ontario.

PRUDENTIAL INSURANCE
NEWARK, NEW JERSEY

Introduced to the vanpooling concept by literature on the 3M experience, Prudential Insurance decided that such a program might be an excellent means for them to reduce fuel consumption and vehicle emissions. Thus, in July 1975, the company purchased the first van of its current 108-vehicle vanpool program.

The company's 12-passenger vans provide door-to-door service for employees, transporting them the 25 to 35 miles to one of Prudential's satellite offices. The Prudential vanpool program is unique in that it involves "reverse" commuting, i.e., picking up employees in the City of Newark and taking them to suburban locations. Vanpooling is one of the benefits offered to new employees.

The vehicles, which are insured under a general fleet policy and self-insured for collision, are also used for general company business during the day. Like other van programs, Prudential operates on a break-even basis. However, the method fare calculation and collection used by the company is unique. At the end of each month, Prudential sends the van driver a bill based on "chargeable miles" (total van mileage minus company business use miles). The charge of 10 cents per mile, which must be paid by the driver within 5 days, finances all fixed and operating costs other than gasoline, which is purchased by the driver. It is the responsibility of the driver and passengers to determine the amount, method, and time of fare payment to the driver. Through this procedure, the company is able to leave such issues as fare payment during vacations to each pool group. This allows the fare system to achieve a degree of flexibility not permitted by the general fare collection procedure.

From its start, Prudential's vanpool program has received an extremely enthusiastic response. The riders' appreciation of the convenient commuter service and its corresponding effect on employee morale have impressed the program directors as well as non-pooling employees.

For additional information on the Prudential vanpool program, contact Pete Torgersen, Prudential Insurance Company of America, Prudential Plaza, Newark, New Jersey 07101, (201) 877-7776.

RESTON COMMUTER BUS
RESTON, VIRGINIA

In 1969, the growing community of Reston, Virginia initiated its subscription bus service to the Washington, D.C. metropolitan area. Since that time, the service has become a non-profit corporation providing low-cost commuter bus service (RCB) for 2,400 Reston residents each day.

In February 1974, RCB began operating a 12-passenger van between four pick-up points in Reston and Rockville, Maryland - 30 miles away. The van service, complementing the large bus system, now includes three vans taking 35 commuters from their homes to the Pentagon, Crystal City, National Airport and Bethesda.

The van program, which is operated by the RCB office staff under a board of directors and officers, purchased its deluxe vans in part with an interest free loan from RCB covering a 25 percent down payment. The remaining cost of the vans was financed through a 10 percent loan extending over 3 years. Since RCB is a non-profit organization, the van system is run on a break-even basis, with passenger fares servicing all costs. Fares, which are based upon eight paying passengers, range from $42 to $44.50 per month.

Van drivers are required by RCB to secure a chauffeur's license (not required by state law) in order to ensure better drivers and minimize insurance costs. Drivers are given free rides, and are responsible for obtaining fuel and minor repairs. Regular maintenance for all vans is provided by a private garage.

When RCB first began its van operation, the service was determined by the State Corporation Commission to be subject to regulation as a common carrier. However, RCB was able to obtain an amendment to existing Virginia law exempting "mini-buses" from SCC regulation as long as their routes and schedules do not coincide with those of certified carriers.

The van program has proven to be an important supplement to RCB's Commuter Bus System. Riders realize significant savings over the costs of automobile commuting, and perhaps more important for Reston, the commuter transportation program has proven to be a significant factor in the decision of many people to move to Reston.

For further information on Reston Commuter Bus, Inc., contact Lawrence Frisbee, Reston Commuter Bus, Inc., 11404 Washington Plaza West, Reston, Virginia 22090 (703) 437-7800.

SCOTT PAPER COMPANY
PHILADELPHIA, PENNSYLVANIA

In August 1975, Scott Paper became the first Philadelphia company to experiment with vanpooling. Scott's two leased vans transport 19 employees over daily routes of 25 and 45 miles. A third van serves as an airport shuttle and backup commuter van.

The vanpool program is funded entirely by the passenger fares; the company strongly believes that it should not subsidize any one particular group of employees. Fares are calculated on the basis of eight paying passengers, and are currently $24.80 and $29 per month. Since Scott has a fleet of leased cars, the vans are covered by a fleet insurance policy for about $40 per month per van.

Perhaps the most unique feature of the Scott Paper commuter van program is the method of promotion. The company, assisted by the Delaware Valley Regional Planning Commission, held special employee meetings and distributed vanpool questionnaires. The project was also well publicized in the company's daily paper. Once a potential group was established, Scott borrowed a van for a week from its leasing company, Automotive Rentals. Through this arrangement, the two prospective pool groups were able to become acquainted with vanpooling at no cost to themselves. So far, this trial-run procedure has proven to be successful in establishing permanent vanpools.

One problem which Scott Paper did face in the planning stages of its van project was uncertainty as to the financial wisdom of entering into such a new venture. As a result, the company decided to enter into an "Abort Agreement" under the carpool demonstration provisions of the Emergency Highway Energy Conservation Act, Public Law 93-239, as amended. Under such an agreement, the Federal Government consents to fund 90 percent of losses incurred should the vanpool project be forced to terminate during the life of the agreement (12 months). Despite the attractiveness of such a plan, Scott found that the 7 month delay in their van program which resulted as the details of the agreement were worked out had a detrimental effect on employee interest. By the time the plan went through, enthusiasm for vanpooling had been reduced considerably. Consequently, the Director of Scott Paper's Program believes that it is not worthwhile for a company to attempt to get an Abort Agreement unless it is considering the purchase of a large number of vans.

For additional information on the Scott Paper Company's vanpool program, contact Robert Mantell, Scott Paper Company, Industrial Highway Plaza One, Philadelphia, Pennsylvania, (215) 521-5000, extension 300.

SPERRY FLIGHT SYSTEMS
PHOENIX, ARIZONA

In response to the energy crisis in late 1973, Sperry Flight Systems began a search for a reliable and economical means of transporting employees to supplement their existing carpool program. Borrowing the idea of vanpooling from the 3M Company, the Sperry Sponsored Transit Program began in April 1974 with four 12-passenger vans.

The program now includes 11 vans providing commuter service for 130 of Sperry's employees at its three Phoenix locations. The company provides liability, collision, and comprehensive damage insurance coverage for drivers, passengers, and the vans.

Operating on a break-even basis, fares are calculated to cover all costs of the program based upon a 9-passenger per van ridership. Each rider is required to pay for a full month (20 days), and is reimbursed for rides not taken if he or the driver fills his seat during the absence. Additionally, Sperry reimburses fares lost by a rider who has been requested to work overtime.

Recognizing the significance of the pool coordinators to the success of the vanpooling program, the company has established stringent qualification requirements. Drivers and alternate drivers are chosen by lottery from candidates who have been satisfactorily employed by Sperry for at least 1 year and have not had over two traffic violations in the previous 3 years. In addition, each driver and alternate is required to obtain a Class A chauffeur's license and complete a course in defensive driving certified by the National Safety Council. The pool coordinator is responsible for driving and maintaining the van, establishing pick-up points and schedules, collecting fares, and filing a monthly expense report. In return, the driver rides free, keeps the fares of the 11th and 12th passengers, and is permitted to use the van during nonbusiness hours at a minimal cost.

According to the Director of the Sperry Sponsored Transit Program, maintenance of the vans initially proved to be a problem. With each driver using different maintenance companies, Sperry had little control over the quality and costs of service. Additionally, pool coordinators found it necessary to take time off from work to obtain van maintenance because such service is unavailable in the Phoenix area during evenings or weekends. This situation was resolved, however, when Sperry signed an agreement with the company from which

they lease their vehicles. The leasing company now arranges for the pick-up, repairs, and return of the vans. Sperry has found that such a procedure allows for more economical and efficient maintenance.

Through the operation of its van program, Sperry has found that vans are most economical when serving commuters living over 20 miles from the plant, with a waiting list of several people to ensure maximum ridership. Vanpools with one-way routes of less than 10 miles have not been successful because the financial and time costs of vanpooling at such distances is greater than that of driving alone or carpooling.

In summary, Sperry Flight Systems is pleased with the progrss of its van program to date. Promotion is vociferous and on-going and the company expects to expand its van fleet as employee interest permits.

For additional information on the Sperry Sponsored Transit Program, contact Betty Dearling, Sperry Flight Systems, Mail Staton 101E, P.O. Box 21111, Phoenix, Arizona 85036, (602) 942-2311, extension 211.

TENNESSEE VALLEY AUTHORITY
KNOXVILLE, TENNESSEE

In June 1974, in response to the energy crisis and traffic congestion in the Knoxville business district, the Tennessee Valley Authority (TVA) initiated a vanpool program in cooperation with the TVA Employees Credit Union. The program began with six 12-passenger vehicles and has since been expanded to a total of 226 vanpools at 10 sites in 2 states.

Initially begun as a demonstration project, the vanpool program has become an integral part of a comprehensive employee commuter transportation program that transports TVA workers to relatively isolated rural nuclear power plant construction sites, to congested central business districts in Knoxville and Chattanooga, and to outlying power production facilities. TVA has saved at least $10 million by reducing the need for additional parking and highway facilities. The vanpool program has also reduced tardiness and absenteeism, increased employee morale and is credited with tripling minority employment on one major construction project.

The vanpool program is administered by three TVA Credit Unions, each having a Vanpool Project Committee. There are five members on each project committee--three appointed by TVA and two appointed by the respective credit union. The operation of the TVA program is particularly interesting due to legal restraints which prevent the agency from directly administering it. Federal Law (3) USC Section 638(a)(c)(2) forbids the utilization of Government-owned vehicles for transporting Government employees between their homes and place of employment. As a result, an agreement was drawn up between TVA and the TVA Employees Credit Union (a private agency) delegating the responsibility for leasing the vans and administering the program to the Credit Union.

The vans were originally leased from Hertz Rent-A-Car for a period of 2 years. To avoid downtown parking costs and to make full use of the vans, the credit union subleased the vans to several local Community Action Agencies between the hours of 8:30 A.M. to 4 P.M. Because of administrative and logistical problems, the subleasing arrangement had a nearly ruinous effect on the program. TVA soon realized that its policy of subleasing vans at operating cost was not a good financial decision, and terminated the agreement in January 1976. As the program expanded, the Knoxville Project Committee decided to purchase the vans instead of leasing them because of the significant

monetary advantages of purchasing, such as fleet discounts and additional revenues from the resale of vans.

TVA operates a program to ease the transportation problems associated with construction of their Hartsville Nuclear Plant. Maximum traffic will occur during the middle 2-1/2 years of a 10-year construction period when there will be approximately 6,000 construction workers employed on the site. In August 1977, 49 percent of the 2,500 construction workers were traveling in vanpools and 5 percent in buses. The average vehicle occupancy of all vehicles is 3.5. TVA has a goal of 5.0 persons/vehicle during peak construction activity. This approach is designed with the primary purpose in mind of reducing vehicular traffic on state routes.

The operating cost of each van is 11 cents per mile, and fares are established to finance this and the fixed costs. Fares are paid weekly by construction workers and monthly by all other employees by means of payroll deduction or by check. Monthly subscription fares for riders range from $13.25 to $62.25 per month, depending on the distance from work.

Van drivers are not required to have any kind of special license, only a valid driver's license. In March 1976, the Tennessee General Assembly passed a bill (House Bill No. 2184) exempting vanpools from the regulatory powers of the State Public Service Commission (PSC). Major credit for the passage of this legislation must be given to the professors at the Unversity of Tennessee's Transportation Center who initiated and followed the legislation through the House. The bill limits ride-sharing programs to operators "engaged primarily in the hauling of fifteen (15) or fewer passengers to and from their regular places of employment, taxicabs and airport limousines excepted....."

For additional information about the TVA vanpool program, contact Stanley Stokey, Tennessee Valley Authority, 301 West Cumberland Avenue, Knoxville, Tennessee 37902, (615) 632-4325.

TEXAS INSTRUMENTS, INC.
DALLAS, TEXAS

As a result of Environmental Protection Agency transportation control regulations and a desire to conserve fuel and reduce pollution, Texas Instruments began its carpool program in March 1974. Part of a comprehensive ride-sharing effort by the company, the "Trans-I-Van" program is modeled after that of 3M. Initiated with the purchase of five 12-passenger vans, the program now operates 14 vehicles traveling 60 to 130 miles round trip each day. The company has also provided one additional van to serve as a backup in case of emergency.

Texas Instruments publicizes its van program by word of mouth and through the use of a special poster displayed on company bulletin boards. With a 13,000 car lot, the company does not have a shortage of parking spaces. However, both carpools and vanpools do receive preferential parking.

Fares for the van program are established so that all fixed and operating costs will be financed at the end of 4 years. A consequence of this method of funding the program is that the company incurs a loss on new vans and a profit on old ones due to depreciation considerations. By evenly spreading the fixed costs of the van over a number of years, the fares are prevented from being artificially high during the first years of a pool.

Similar to most other van programs, drivers are required by the state to obtain chauffeur's licenses. In addition, Texas Instruments requires that a driver must have a good driving record, be a responsible individual, and be able to provide off-street parking for the van.

For additional information on Texas Instruments Trans-I-Van program, contact Marvin Powers, Texas Instruments, Mail Station 361, 13500 North Central Expressway, P.O. Box 5474, Dallas, Texas 75222, (214) 238-3787.

UNIVERSITY OF CALIFORNIA
SAN FRANCISCO, CALIFORNIA

The University of California instituted an employee vanpooling program in September 1975 with two 12-passenger vans. Since that time, the program has expanded to a total of 20 vans in operation.

The vans are used for commuting purposes and also are employed during the day as shuttle buses. The average commuting trip is 25 miles one way. The average fare is $32 per month; however, each passenger's fare varies according to the distance traveled. As an incentive, the driver of the van rides free but is not permitted private use of the van. Insurance is handled through two University of California insurance policies which cost a total of $260 per van.

For further information concerning the University of California (San Francisco) vanpooling program, contact James Wood, University of California, Business Services Office, 1379 Third Avenue, San Francisco, California 94143, (415) 666-1511.

WINNEBAGO INDUSTRIES
FOREST CITY, IOWA

With 70 percent of their 2,700 employees commuting from out of town, the situation at Winnebago Industries was ripe for a company-sponsored ride-sharing program. The company began a vanpool in December 1974, as a result of a high absentee rate due to transportation inadequacies and expensive commuting costs due to the energy shortage. Beginning with 10 vehicles, the program has since expanded to the current 29 vans serving over 700 employees daily. Also, three 40-passenger chartered buses are used to supplement the van operation.

The van program uses Winnebago vehicles--twenty-six 21-passengers and three 40-passengers. Operated on a break-even basis, the vans transport employees an average of 70 miles round trip each day for a charge of $28 per month. Drivers receive a portion of the income as well as a free ride.

In the opinion of the Program Director, the only ongoing problem has been that of securing good drivers with the necessary qualifications. Otherwise, the van program has worked well. Despite the fact that several of the vans transport employees from residences in Minnesota, the company has experienced no regulatory restrictions to date.

Vanpooling has resulted in tremendous savings for both the company and its employees. Consequently, most routes have waiting lists of people who would like to participate in the pool program.

For additional information on the Winnebago vanpool program contact Shirley Machenk, Winnebago Industries, P.O. Box 152, Forest City, Iowa 50436, (515) 582-3535.

VANPOOL

COST and FARE

CALCULATION

VANPOOL COST AND FARE CALCULATION

	Sample		Your Van
A. Calculate the monthly fixed cost of a purchased vehicle			
1. Determine the cost per month for depreciation purposes			
Start with the cost of the vehicle	$7,400		
Subtract immediate depreciation (tires)	- 200		
	$7,200		
Less salvage value (after 4 years)	-2,800		
Equals depreciable value	$4,400	or $ 92/month	
2. Add other annual expenses			
License, registration, taxes	$ 120		
Insurance	+ 460		
Equals other fixed expenses	$ 580	or +$ 48/month	
3. Monthly fixed cost (items 1 plus 2 above)		$140/month	
4. Add optional maintenance contract		+$ 35/month	
Total Monthly Fixed Cost		$175/month	

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	Sample	Your Van
B. Or calculate the monthly fixed cost of a leased vehicle		
1. Start with your monthly leasing cost	$140/month	
2. Add maintenance contract (if not in lease)	35/month	
3. Add insurance (if not in lease)	40/month	
Total monthly fixed cost	$215/month	
C. Calculate per mile operating costs for purchased and leased vehicles		
1. Start with the cost of gasoline (60¢/gal. ÷ 9 mi/gal.)	$0.067/mile	
If you included a maintenance contract on A or B, gas is your only per mile cost. Otherwise:		
2. Add the cost of oil change, filter and lubrication	0.005/mile	
3. Add other maintenance cost	0.012/mile	
4. Tire costs over the life of the van	0.006/mile	
Total operating cost/mile	$0.09 /mile	

	Sample	Your Van
D. Calculate passenger fares		
1. Start with each van's daily round trip distance	50 miles	
2. Multiply this by your average number of workdays in a month	x20 = 1,000 miles	
3. Multiply this by your per mile operating cost from C	x$0.09 = $ 90/month	
4. Add the van's monthly fixed cost from A or B	+$ 140 = $230/month	
5. Divide this cost by your breakeven number of passengers	÷ 9 = $ 26/month	

B I B L I O G R A P H Y

O F

V A N P O O L

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